THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 39

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEFFREY D. GELORME, MARTIN J. GOLDBERG, NANCY C. LABIANCA and JANE M. SHAW

Appeal No. 97-0225
Application No. 08/357,789[1]

ON BRIEF

Before PAK, WALTZ, and ROBINSON, Administrative Patent Judges.

PAK, Administrative Patent Judge.

DECISION ON APPEAL

Gelorme et al. (appellants) appeal from the examiner's final rejection of claims 1, 6, 8 and 21 through 26. Claims

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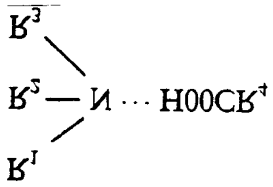
[1] Application for patent filed December 16, 1994. According to appellants, the application is a continuation of Application No. 08/122,886, filed July 13, 1993, now abandoned; which is a continuation of Application No. 07/782,943, filed October 25, 1991, now abandoned.

9, 10 and 13 through 19 stand withdrawn from consideration by the examiner as being directed to a nonelected invention.

The claimed subject matter is directed to a photosensitive composition containing a polyimide precursor and a complex of a polymerizable carboxylic acid functional compound with a tertiary amino functional group. This subject matter is related to the subject matter embodied in Appeal No. 97-0226, which is directed to a process for using the presently claimed photosensitive composition. Claim 1 is illustrative of the invention described in this application and reads as follows:

1. A photosensitive composition comprising a polyimide precursor; and as a modifier reactive with said polyimide precursor a complex of a polymerizable carboxylic acid functional compound with a tertiary amino functional group wherein said complex is represented by the formula:



wherein each of R_1, R_2 and R_3 is individually selected from the group of alkyl groups, acrylyl and methacryl groups; and R_4 is selected from the

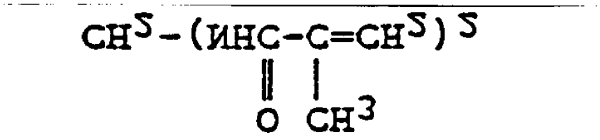
The reference relied upon by the examiner is:

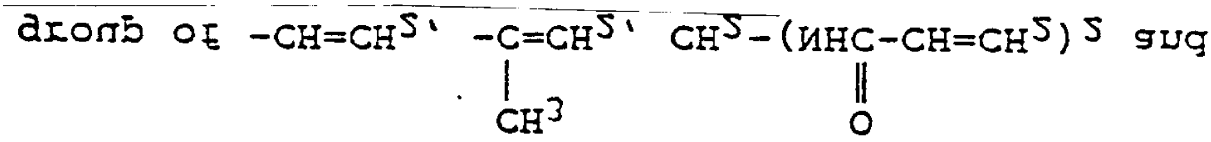
General Chemistry, March et al, Macmillan Publishing Co., Inc., New York, 1979, pp 162-163 (hereinafter referred to as "March").

The reference relied upon by appellants is:
Concise Chemical and Technical Dictionary, Third Enlarged Edition, Bennett, Chemical Publishing co., Inc., New York, 1974, page 272 (hereinafter referred to as "Bennett").

The appeal claims stand rejected as follows:

(1) Claims 1, 6, 8 and 21 through 26 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to





particularly point out and distinctly claim the subject matter which appellants regard as their invention[2];

(2) Claim 6 under 35 U.S.C. 112, fourth paragraph, for failing to further limit the subject matter of its parent claim;

(3) Claims 22 and 23 under 35 U.S.C. 112, first paragraph, for lacking descriptive support for the subject matter presently claimed in the original disclosure; and

(4) Claims 1, 6, 8 and 21 through 26 under 35 U.S.C. § 112, first paragraph, for failing to provide an enabling disclosure for the subject matter claimed.

We have carefully reviewed the entire record, including all of the argument advanced by the examiner and appellants in support of their respective positions. This review leads us to conclude that the examiner's rejections are not well founded. Accordingly, we will not sustain the examiner's rejections for essentially those reasons set forth by appellants in their Brief. We add the following primarily for emphasis.

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[2] The rejections of claims 6, 8 and 21 under 35 U.S.C. § 112, second paragraph, are included in this rejection.

We consider first the examiner's rejection of claims 1, 6, 8 and 21 through 26 under 35 U.S.C. § 112, second paragraph, as being indefinite. In determining whether claim language runs afoul of the second paragraph of 35 U.S.C. § 112, we must analyze the definiteness of the language employed in claims not in a vacuum, but always in light of the teachings of the prior art and the application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. ***In re Sneed***, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983); ***In re Angstadt***, 537 F.2d 498, 501, 190 USPQ 214, 217 (CCPA 1976). The claims are deemed definite so long as they reasonably apprise one of ordinary skill in the art of their scope. ***In re Warmerdam***, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). We are mindful that the examiner has the initial burden of demonstrating indefiniteness of the claims. ***In re Oetiker,*** 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The examiner initially argues (Answer, page 5) that "[t]he linking bonds for the bisacrylamide and bismethacrylamide R_4 groups are not shown in claim 1."

Although the linking bonds for two of the four R_4 groups are not shown in claim 1, we are of the view that one possessing ordinary skill in the art would have known that such linking bonds are present in those R_4 groups. The presence of such linking bonds is apparent from a formula which defines the claimed complex. When any one of these R_4 groups is linked to the carboxylic acid group of the complex, five bonds will be present on the carbon atom of the carboxylic acid group. Compare Answer, page 6, with Brief, page 5. Thus, we conclude that the scope of claim 1 is unambiguous to those skilled in the art.

The examiner, referring to claim 6, also argues that "[i]t is not clear what the claimed compound dimethylaminopropanol methyl methacrylate is." See Answer, page 6. The examiner, however, has not demonstrated that the meaning of the expression "dimethylaminopropanol methyl methacrylate" is not known to those skilled in the art. See Answer, pages 6 and 10. A mere fact that *Chemical Abstracts' Registry* database does not mention dimethylaminopropanol methyl methacrylate would not, by itself, render such

expression indefinite unless the examiner can establish that the expression does not reasonably apprise one of ordinary skill in the art of the scope of protection sought by appellants. Note also that the examiner's reference to the nomenclature of dimethylaminopropanol methyl methacrylate at page 9 of the Answer further negates the examiner's position that its meaning is not known to those skilled in the art.

Further, the examiner, referring to claims 8 and 21, argues that "[i]t is not clear what are the reactive groups of the polyimide precursor." See Answer, page 8. The examiner, however, has not demonstrated that reactive groups of the polyimide precursors defined at page 4 of the specification are not known to those skilled in the art. In fact, the examiner recognizes that carboxylic acid groups of the polyimide precursors (the polyamic acids) are reactive groups. See Answer, page 8, together with specification, page 4. Note also that the polyimide precursor needs reactive groups to react with the claimed complex as required by claim 1. Since the language employed in claims is not analyzed in a vacuum, but always in light of the teachings of the prior art and the application disclosure as it would be interpreted by one

possessing the ordinary level of skill in the pertinent art, we agree with appellants that one of ordinary skill in the art would have known the meaning and the scope of the expression "the reactive groups of the polyimide precursor".

Secondly, we consider the examiner's rejection of claim 6 under 35 U.S.C. 112, fourth paragraph, for failing to further limit the subject matter of its parent claim, claim 1. According to claim 1, "each of R_1, R_2, and R_3 is individually selected from the group of alkyl **groups**, acrylyl **groups** and methacryl **groups**...(emphasis supplied)". This phrase does not limit R_1, R_2, and R_3 to methacryl, acrylyl or alkyl. Rather, as argued by appellants, it encompasses any compound which contains the structure defined by alkyl, methacryl and acrylyl. See Brief, page 7. Since the methacrylate part of dimethylaminopropanol methyl methacrylate recited in claim 6 does contain the methacryl structure of claim 1, we agree with appellants that claim 6 further limits its parent claim 1.

Thirdly, we consider the examiner's rejection of claims 22 and 23 under 35 U.S.C. § 112, first paragraph, as lacking descriptive support for the subject matter now claimed in the

original disclosure. The purpose of the written description requirement of 35 U.S.C. § 112, first paragraph, is to convey with reasonable clarity to those skilled in the art that, as of the filing date sought, appellants were in possession of the invention now claimed. ***Vas-Cath Inc. v. Mahurkar***, 935 F.2d 1555, 1564, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). We note that there is no literal support in the original disclosure for the phrase "wherein said reactive groups are carboxylic acid groups" in claims 22 and 23. However, the specification as originally filed does describe polyimide precursors (polyamic acids) having carboxylic acid groups which are reactive to the claimed complex. See Specification, page 4. The examiner also acknowledges at page 8 of the Answer that the carboxylic acid groups are the reactive groups. Specifically, the examiner states that "[t]he [e]xaminer agrees that carboxylic acid groups are reactive groups..." See Answer, page 8. Under these circumstances, we cannot agree with the examiner that the disclosure as originally filed does not reasonably convey to one of ordinary skill in the art that, as of the filing date sought, appellants had possession of the invention now claimed.

We now consider the examiner's rejection of claims 1,6,8, and 21 through 26 under 35 U.S.C. § 112, first paragraph, as lacking an enabling disclosure in the specification for the subject matter claimed. As stated in ***In re Vaeck***, 947 F.2d 488, 496 n. 23, 20 USPQ2d 1438, 1444-1445 (Fed. Cir. 1991):

> The first paragraph of 35 U.S.C. § 112 requires nothing more than objective enablement. ***In re Marzocchi***, 439 F.2d 200, 223, 169 USPQ 367, 369 (CCPA 1971). How such a teaching is set forth, either by use of illustrative examples or by broad terminology, is irrelevant. ***Id.***

Where applicants' specification contains a description of the manner of making and using the claimed invention in terms corresponding in scope with those of the claims, compliance with the enablement requirement of the first paragraph of 35 U.S.C.

§ 112 is **presumed**. ***In re Marzocchi***, 439 F.2d at 223-224, 169 USPQ at 369-370. It is the examiner's burden to present adequate reasons to doubt the objective truth of appellants' statements in the specification. ***Id.*** In presenting adequate reasons, the examiner must take into consideration, ***inter alia***, the amount of guidance or direction presented in the

specification, the nature of the claimed invention, the state of the prior art, the relative skill of one of ordinary skill in the art and the predictability or unpredictability of the art. ***In re Wands***, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988), ***citing with approval Ex parte Forman***, 230 USPQ 546, 547 (Bd. Pat. App. & Int. 1986).

Here, the examiner argues (Answer, page 5) that:

> The specification does not teach how to provide R_4 groups in which the carbon atom linking the R4 group to the carboxyl group has a valence of 5. Typically a carbon atom has a valence of 4. Page 6 of the specification and claim 1 teach the use of R4 groups which contain carbon atoms with a valence of 5.

In so arguing, the examiner fails to consider the state of the prior art as represented by the prior art reference referred to at page 5 of the Brief. According to appellants, the Bennett reference teaches (Brief, page 5) that:

> [T]he claimed formula is a complex as stated, and a complex, as would be apparent to those skilled in the art, is a component in which a particular atom is attached to other atoms or groups of atoms to a number in excess of its charge or oxidation number.

This definition explains why the claimed complex has five bonds on the linking carbon atom. The examiner's reliance on the March reference, however, does not negate this teaching. The March reference, for example, shows oxygen having three bonds even though it typically has a valence of two. See page 162. The March reference also indicates that "hydrogen bonding is not present" in every hydrogen containing compound. ***Id.***

The examiner also argues that "the **specification** does not teach what groups on the polyimide precursor are the reactive groups of the polyimide precursor (emphasis supplied)." See Answer, page 5. In so arguing, the examiner again ignores the state of the prior art, as well as the relative skill of one of ordinary skill in the art. In this regard, we also note that the examiner acknowledges at page 8 of the Answer that carboxylic acid groups, although not mentioned in the specification, are the reactive groups of the polyimide precursors (polyamic acids).

No period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED

CHUNG K. PAK Administrative Patent Judge	)	
THOMAS A. WALTZ Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
DOUGLAS W. ROBINSON Administrative Patent Judge	)	

CKP:lp

Appeal No. 97-0225
Application No. 08/357,789

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Appeal No. 97-0225
Application No. 08/357,789

APJ PAK

APJ WALTZ

APJ ROBINSON

DECISION: REVERSED
Send Reference(s): Yes No
or Translation (s)
Panel Change: Yes No
Index Sheet-2901 Rejection(s): _____

Prepared: February 11, 2000

Draft Final

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OB/HD GAU

PALM / ACTS 2 / BOOK
DISK (FOIA) / REPORT